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NASO- OR RETRO-PHARYNGEAL GROWTHS.

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NASO- OR RETRO-PHARYNGEAL GROWTHS.

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I DESIRE to place on record an operation the performance of which I believe to have been sufficiently rare to make the report of it of interest. From my knowledge of surgical records, based upon observation and an acquantance with the current literature, I can recall but two recorded cases in this country. The operation to which I allude is that for the removal of naso- or retro-pharyngeal tumors.

With regard to these growths I wish first to say a few words relating to their nomenclature. An examination of surgical text-books, even of those most recently issued, shows that the term "retro-pharyngeal" does not, as applied to tumors, find a place in the index. Retro-pharyngeal abscesses are indicated and described, but not retro-pharyngeal tumors. Tumors of the pharynx and naso-pharyngeal polyps appear in the indices, and both are fully discussed by Professor Gross, whilst Professor Agnew gives but a brief account of the former with a full discussion of the latter. In my study of the subject, incidental to the operations which I performed, I was led to the conclusion that, possibly, without unnecessarily refining nomenclature, the position of these growths could be more definitely stated, and thus the nature of the operation to be performed more accurately determined by limiting the application of the term naso-pharyngeal to those which take their origin from the structures in immediate relation to the posterior openings of the nares, as the posterior surface of the vomer, which forms the posterior portion of the septum narium; the inner surfaces of the internal pterygoid plates of the pterygoid processes of the sphenoid

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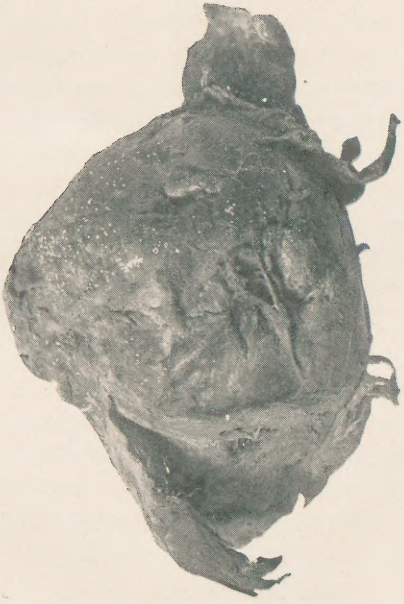
bone; the walls of that part formed by the pterygoid processes and the palate bone; the pterygo-palatine space. The natural tendency of growths taking origin from these parts is to become more largely nasal than pharyngeal; growing into openings which offer little or no resistance they finally, by increased growth, produce by pressure, absorption of adjacent bony structures, and work their way into the cavities in relation with the nasal cavities, as the antra, producing a peculiar distortion of the face.

These tumors are, by reason of their anatomical and surgical relations, more readily accessible through the nasal passages, or, where these do not afford sufficient space for operative procedures, through the mouth or by osteo-plastic resection of the upper jaw. Therefore, in a given case, the diagnosis having been made by reason of the presence largely of symptoms relating to the nares, the operation should be conducted through these cavities or from the front, by any method which may be selected.

The tumors of the character under discussion which take origin from the petro-occipital suture, the under surface of the basilar process of the occipital bone, or from the anterior surfaces of the upper cervical vertebræ, are apt to become, as they grow, more largely pharyngeal than nasal, and may, with a view to localize them, be designated as occipito-pharyngeal or vertebro-pharyngeal tumors.

These are not so readily accessible from the front—that is, through the nasal or oral cavities, or even by osteo-plastic resection of the upper jaw—as the naso-pharyngeal growths, but are easily reached through the upper region of the antero-lateral surface of the neck by incision and resection of the lower jaw. Again, as above, in a given case, the diagnosis having been made by reason of the presence largely of symptoms relating to that portion of the pharynx designated the oro-pharynx, the operation should be made preferably from the side and below, through and behind the pharyngeal walls, section of the lower jaw opening up a route, short and marvellously free from danger in the field of operation.



In the case of a lad, twelve and a half years of age, the subject of an occipito-pharyngeal tumor, I performed the operation of osteo-plastic resection of the upper jaw, and subsequently the operation by incision through the neck, section of the lower jaw and incision through the pharyngeal walls. The first method of operation was selected under the belief that the growth was naso-pharyngeal in character, in accord with the designation I have given above of growths belonging to that class—that it had originated from the structures in immediate relation with the posterior openings of the nasal cavities, and that while it could not be removed through these cavities or through the oral cavity, it could be removed from the front by osteo-plastic resection of the upper jaw. When the operation was made the region about the posterior nares was fully exposed, but the growth was found to have its attachment so far back toward the posterior wall of the pharynx that its complete removal could not be accomplished by this method. The result of this operation led me to study more closely the symptoms presented in the case, and I was then forcibly impressed with the marked absence of those relating to the nasal cavities. There was no discharge from the nose; there had been no epistaxis; there was no obstruction of the right nasal cavity, and although the tumor occupied the left region of the pharynx the left nasal cavity was but partially obstructed. There had been what was described as a "nasty spit" for some time. Audition in the left ear was absent, due in all probability to closing of the left Eustachian tube by the tumor. Inspection of the mouth, which could not be fully opened, revealed the presence of a tumor which lay in close contact with the posterior surface of the soft palate, and extended downward into the pharynx. It could not be completely outlined by the finger. Manipulation produced slight hemorrhage into the mouth. To my mind, these symptoms confirmed what the operation had revealed, the attachment of the tumor far back to the under surface of the basilar process of the occipital bone. From the effects of the operation the

lad made a prompt recovery, and in three weeks left my private hospital and went to the suburban residence of his father.

As the method of operation varied from that devised by Langenbeck in 1859, it may be of interest to describe it briefly. In Langenbeck's operation the incisions of the soft structures and sections of the jaw are so made as to permit the segment to be "moved as on a hinge upon the sutures between it and the nasal and frontal bones." It is, therefore, elevated. In the method I employed, following to some extent that practised by Dr. Cheever, of Boston, in the remarkable case in which he divided both bones and depressed them with the palate bones on the pterygoid processes of the sphenoid, I made an incision of the soft tissues in the same manner as that employed in uncovering the jaw when excision of the bone is performed. The saw was placed over the posterior or zygomatic surface of the bone, and carried across into the nose. The central incisor of the left side was then removed, and the hard palate sawn through. The bone was then readily depressed, and the field of operation exposed. After removal of the growth the segment of the jaw was replaced and wire sutures were introduced through the divided malar and nasal processes, the ends of the wires being brought out through the incision in the soft tissues, and the points covered with shot. A wire ligature was placed around the incisor teeth, thus holding the bone firmly in place. In four days the skin sutures were removed, and in four weeks those in the bone, the jaw being firmly united, and the patient was able to use it two weeks later in the mastication of soft food. Two months after the operation sensation returned in the teeth of the jaw resected, as manifested by the patient's ability to appreciate the presence of food between them and those of the lower jaw.

A number of enlarged lymphatic glands occupying the left side of the neck were not disturbed at this time, as it was desired by the parents that an effort might be made to remove them by medical treatment. No effect was produced by medical treatment, and the patient was again admitted into my hospital. On examination, I found the glands had greatly increased in size, and also

that the pharyngeal tumor had recurred. I therefore determined to attack it from the neck by an operation which would at the same time permit of removal of the enlarged glands. A crescentic incision, with the convexity downward, was made on the left side from a point midway between the mastoid process and angle of the jaw to a point one inch in front of the anterior inferior angle of the masseter muscle. In order to delay a necessary division of the facial artery, the tissues of the posterior portion of the incision were divided to a sufficient depth to permit of the enucleation of the enlarged cervical glands. Six glands of varying size were removed, and the anterior portion of the wound then deepened, dividing the facial artery, vein, and the external jugular vein, each of which was ligatured. The mylo-hyoid muscle was now divided, and the inner surface of the jaw uncovered; the external surface was likewise uncovered by dissection of the tissues upward, the periosteum incised in an oblique direction just in front of the inferior angle of the masseter muscle. The jaw was drilled on each side of the incision, and strong silver wire introduced for the purpose of holding the segments apart after section, and uniting them on completion of the operation. The bone was divided and the portions held apart. The dissection was now carefully conducted, largely by the handle of the knife, without opening the cavity of the mouth. Neither nerves nor bloodvessels were seen. The index finger of the left hand was now passed into the mouth, carried to the position of the tumor, and pressure made upon it, which forced it into the wound, so that it could be readily felt. The tissue overlying the tumor—the pharyngeal walls —were now carefully divided, the index finger introduced through the opening, and the tumor separated from the enveloping tissues. When it was entirely freed it was found to be attached by a broad base to the under surface of the basilar process. The tumor was now seized with the volsellum forceps, and firm traction made, whilst the periosteal elevator was used to separate it from its bony attachment. This was accomplished gradually, in order to avoid tearing the growth and leaving portions adherent. After its removal the surface

was thoroughly scraped with the Volkmann spoon and periosteal elevator. The efforts at the removal provoked but little hemorrhage, and that which occurred was not arterial. The gustatory nerve was not seen, nor were any large arterial trunks seen or felt in the field of operation. The wound in the pharyngeal walls was not sutured. The dressing was completed by packing the cavity loosely with 5 per cent. iodoform gauze; wiring the divided bone with two strong silver wires, the ends of which were brought out between the edges of the wound and shot clamped on them; suturing the soft tissues and covering the surface with iodoform gauze, boric acid cotton, and a roller. On the third day following the operation the dressings were removed. For a few days subsequently fluids escaped by the opening in the pharynx. This was overcome by turning the head to the side opposite the wound. Gradually the opening closed, and deglutition became normal. The sutures in the soft structures were removed on the fourth day, and those uniting the bone in the sixth week. Slight necrosis has occurred at the point of section of the bone, and possibly some exfoliation will take place. The patient now uses the jaw in mastication, and opens the mouth to the extent of three-fourths of an inch.

With regard to the operation, I join Dr. Cheever, who I believe devised it, in the expression of surprise at the ease with which it may be made, and the absence of complications in a region the path through which would, from an anatomical point of view, seem to be beset with many and great dangers.